

REMARKS

I. Formal Matters

Claims 1-7 are all the claims pending in the application. By this Amendment Applicants add claim 8. Ample support for newly added claim 8 can be found throughout the specification.

Applicants thank the Examiner for acknowledging the receipt of priority documents submitted under 35 U.S.C. § 119. Applicants also thank the Examiner for initialing the information disclosure statement (IDS) submitted on December 13, 2005. Additionally, Applicants thank the Examiner for acknowledging the drawings filed on December 13, 2005.

II. Claim Rejections

Rejections Under 35 U.S.C. § 102

The Examiner has rejected claim 1 under 35 U.S.C. § 102(b) as allegedly being anticipated by Kajiura (U.S. Patent No. 6,713,888). Applicants respectfully disagree.

With regard to independent claim 1, Kajiura fails to disclose, or even suggest, at least the “inverter unit **[which] is integrally mounted to the rotating electrical machine** and is electrically connected to the stator winding.”

Applicants respectfully assert, that as disclosed in the background of the subject application, there exist problems in the prior art regarding the size of the inverter, and the inability of the inverter to exhibit the characteristics of the rotating electrical machine. Thus, in one exemplary embodiment, the inverter is miniaturized by adjusting the characteristics of the rotating electrical machine, and by mounting the miniaturized inverter on the rotating electrical machine, Applicants’ exemplary device is able to achieve the benefits as listed on pages 12-13 of the subject application. (See ¶¶ [0017]-[0019]). Additionally, as recited in the subject

application, the rotating electrical machine has only a very limited amount of mounting space, and as such, it is necessary to miniaturize the inverter units in order to be able to mount it. It will be appreciated that the foregoing remarks relate to the invention in only a general sense, the remarks are not limitative of any claims and are intended only to help the Examiner better understand the distinguishing aspects of the claims mentioned above.

The Examiner simply directs Applicants to FIG. 1 of Kajiura, as allegedly disclosing an integrally mounted inverter unit. Applicants respectfully disagree. FIG. 1 is merely a conceptual view of the circuit representing the system of Kajiura. In fact, none of the figures, nor the disclosure of Kajiura, explicitly, or implicitly, discloses, or even suggests, the location of the inverter unit. As such, Applicants respectfully assert that it is not common knowledge to mount the inverter unit on the rotating electrical machine, as recited in claim 1. To the extent that the Examiner disagrees, Applicants respectfully request that the Examiner provide a reference to this effect.

Moreover, Kajiura is deficient because it fails to disclose, or even suggest, a rotor that includes a rotor iron core “which includes **a magnetic part** where adjacent magnetic poles are **formed to have different polarities**, and a field winding, **and a permanent magnet** which is disposed between the adjacent magnetic poles and supplies, together with the field winding, magnetic flux to the stator iron core,” as recited in claim 1. That is, the subject application includes **both a plurality of magnetic poles formed to have different polarities, and permanent magnets disposed between the magnetic poles**. For example, by placing the permanent magnets between the magnetic poles, **the amount of magnetic flux on the stator**

core is increased, the inverter current is suppressed, and thus the inverter is miniaturized. (See page 15, paragraph 1, of the subject application).

Instead, Kajiura discloses a rotor core, which is made by stacking a large number of disk shaped plates of magnetic material along the axial direction. Next, a plurality of magnet accommodation apertures 3123a, or openings, are formed around the circumference of the rotor core and extend through the rotor core in the axial direction. (See Col. 17, ll. 25-25). Permanent magnets are then fit into their respective apertures around the circumference of the rotor core. These magnets 3124 are placed in an alternating order with pins 3129, which are configured to function as magnetic shunt members. (See Col. 17, ll. 18-22, see also, e.g., FIG. 18). There is no disclosure of the magnetic polarities of the pins. Additionally, a shunt member functions to **reduce the amount of magnetic flux** of the permanent magnet that flows into the stator 3130. (Col. 18, ll. 36-39).

For at least the above reasons, Applicants respectfully assert that claim 1 is not anticipated by Kajiura.

Rejections Under 35 U.S.C. § 103

The Examiner has rejected claims 2-7 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kajiura in view of Takahashi (U.S. Patent Publication No. 2003/0234578).

With regard to claims 2-7, claims 2-7 are dependent from claim 1, thus, Applicants respectfully assert that claims 2-7 are patentable at least by virtue of their dependency on claim 1. They are also patentable because of the additional limitations recited therein.

For example, with regard to claim 2, Takahashi does not teach, or even suggest, at least a “rotor[, which] is a **claw-pole type rotor**, and the permanent magnet includes a **pair of permanent magnets** interposed between pawl-shaped magnetic pole parts of the **rotor**.”

Instead, in paragraph [0084], the paragraph relied on by the Examiner, Takahashi discloses a “**stator** 17 of a design in which a plurality of magnetic poles made up of claws 21*a* and 21*b* of a pole shape are arranged alternatively.” That is, **Takahashi is directed to a stator, and not a rotor**. Additionally, there is no disclosure of even a single permanent magnet, let alone a “**pair of permanent magnets** interposed between pawl-shaped magnetic pole parts of the rotor.”

Moreover, Applicants have already demonstrated the deficiencies of Kajiura as applied to independent claim 1. The Examiner relies on Takahashi only for its alleged disclosure of “a claw-type rotor and ... pair of permanent magnets interposed between pawl-shaped magnetic pole parts of the rotor.” (See Office Action, page 3). Thus, even if, *arguendo*, Takahashi taught all of the elements of claim 2, as asserted by the Examiner, it would still fail to cure the deficient disclosure of Kajiura. For these additional reasons, Applicants respectfully assert that claim 2 is patentable over the cited references.

Similarly, with respect to dependent claim 5, Takahashi fails to teach, or even suggest, the “the rotating electrical machine include[ing] a cooling fan, and cooling is made by cooling air thereof in order of the inverter unit, the rotor, and the stator.”

The Examiner relies on FIG. 9, element 37 as allegedly disclosing a cooling fan. (See, Office Action, page 4) However, Applicants respectfully note that not only does FIG. 9 not contain element 37, but element 37 is a “foot pedal” for controlling the “brake operating

member” of Takahashi. Moreover, **a “cooling fan” is not mentioned anywhere** in the disclosure of Takahashi. Thus, Takahashi could not possibly teach a specific order of cooling. For this additional reason, Applicants respectfully assert that claim 5 is patentable over the cited references.

III. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Applicant herewith petitions the Director of the USPTO to extend the time for reply to the above-identified Office Action for an appropriate length of time if necessary. Unless a check is attached, any fee due under 37 U.S.C. § 1.17(a) is being paid via the USPTO Electronic Filing System (EFS). The USPTO is also directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

/Nataliya Dvorson/

Nataliya Dvorson
Registration No. 56,616

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

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